



SWA6A-3
Job Sheet 198418



Ship Via:

Job Routing



DART
AEROSPACE

Date: 08/15/19

Plex 7/29/19 8:20 AM Dart.Renwick.Jennife

				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	SMB
				Packaging 3 - 8 - B4B	19/8/27
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
135	DC - 1 - B4B	1 pcs	8/8/19	0.00 0.00	DC - 1 - B4B
140	QC 21 - FG	1 pcs	8/8/19	0.00 0.00	DC - 2 - B4B
					QC 21 - FG - 21
					QC 21 - FG - 70
					QC 21 - SA - 53

Part Op 100 - Issue S/N.

Descriptions: 110 - Sheet 1 ***All assembly to be done in accordance with SWA swivel manual*** Engrave T/N And / or S/N number as required Using Marktronic engraver as per DWG. Laser engrave dart logo as per DWG. Small Fab-6 (Small Fab) - Assemble as per DWG. Sheet 1 ***All assembly to be done in accordance with SWA swivel manual*** Engrave T/N And / or S/N number as required Using Marktronic engraver as per DWG. Laser engrave dart logo as per DWG.

120 - (QC5- Inspect part completeness to step on W/O) Engrave T/N And / or S/N number as required Using Marktronic engraver as per DWG.

130 - Packaging3 (Identify as per dwg & Stock Location: _____) Bag and tag

GA-ALAIN

135 - DC (Document Control) Photocopy blue file OM & OOPM-SWA6A RevG

140 - (QC21- Final Inspection - Work Order Release)

Loctite 242 (5186572)

Loctite 620 (5194792)

Saf-T-grease (M128063)

Aeroshell grease NO.7 (5138964)

51736825173682

5173682

5173682



Electric Swivel
SWA6A

Work Order 198418

Customer Order 7302

Number of Wires 3

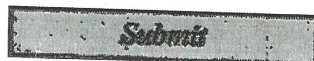
Date 2019-8-15

Serial Number 5205830

Number of Cycles	Load (Lbs.)	Action	Pass/Fail
1	6,000	Check for Conductivity against all wires.	- Pass
1	6,000	Check all wires for grounding against swivel body.	- Pass
1	3,000	Check for Conductivity against all wires.	- Pass
1	3,000	Check all wires for grounding against swivel body.	- Pass
1	1,500	Check for Conductivity against all wires.	- Pass
1	1,500	Check all wires for grounding against swivel body.	- Pass
1	0	Check for Conductivity against all wires.	- Pass
1	0	Check all wires for grounding against swivel body.	- Pass

Test Conducted By: Michel Lalonde
Technician

Signature: Sylvain Bayle
QC 5 Small FAB / QA





Electric Swivel
SWA6A

Work Order 198418

Customer Order 7302

Number of Wires 3

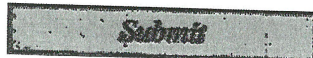
Date 2019-8-15

Serial Number 5205830

Number of Cycles	Load (Lbs.)	Action	Pass/Fail
1	6,000	Check for Conductivity against all wires.	- Pass
1	6,000	Check all wires for grounding against swivel body.	- Pass
1	3,000	Check for Conductivity against all wires.	- Pass
1	3,000	Check all wires for grounding against swivel body.	- Pass
1	1,500	Check for Conductivity against all wires.	- Pass
1	1,500	Check all wires for grounding against swivel body.	- Pass
1	0	Check for Conductivity against all wires.	- Pass
1	0	Check all wires for grounding against swivel body.	- Pass

Test Conducted By: Michel Lalande
Technician

Signature: Sylvain Boyer
QC 5 Small FAB / QA



DQA:

JK

Date:

Oct 7/19

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

Work Order update only ☐

Work Order: <u>198418</u> Part No. <u>SWA### Swivels</u> NCR No. <u>19-7397</u>		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☒ Quality ☐ Other ☐					
Date: <u>2019/08/26</u>		Step #: <u>110</u>		QTY Effective: <u>①</u>		MRB (QSI042) Approval <u>M Lee</u> Feb 01, 2018			
Description Work Order Deviation - Use a combination of heatshrink tubing and RTV Silicone to create a watertight seal around all electrical connections. - Use a D2728-1 Placard in place of the laser engraved Dart logo				Disposition These deviations are acceptable to carry out on the following swivels: - SWA3 - SWA6A - SWA10A - SWA15A - SWA25A - PSWA25A - <u>HH40-0280002 M Lee</u> There is no impact on fit, form or function.				Completed By <u>A. PATEY</u> Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>20-01-03</u> QC / QA Coordinator Approval DAS 9 9-89 <u>20-01-03</u>	
Root Cause Environment ☐ Design ☒ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☒ Process Improvement ☒ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ ☒ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER: ☐							

Entered: 26 Date: Oct 7/19

NCR No. 19-7397

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



Route update only

Job: <u>198418</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐	Route update only ☐			
Part No. <u>C series hooks and SWA Swivels</u>		DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Eng. (Non-AW) ☒ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Water Jet ☐ Large Fab ☐ Finishing ☐ Rec/Store/Packaging ☐ Supplier ☐ Date : Sequence #: Quality ☐			

Date : 19-11-01

Sequence #: 100

QTY Affected : 1

MRB (QSI042)

May, 9 2019

W Lee

Completed By _____

ALVIN PATRICK NOV 1961

Lead hand / Supervisor

DAS
30
9-89

NOV 6 1 2019

QC / QA Coordinator

DAS
9
9-89

20-01-03

Description Work Order Deviation		Disposition	May, 9 2019 <i>M. Lee</i>
The electrical wires listed under "Acceptable Alternate Wire" on the attached sheet are acceptable to use in place of the "Drawing Specified Wire"	This deviation is acceptable.	Completed By <i>ALAN PATE NOV 1 2019</i> Lead hand / Supervisor <i>DAS 30 9-89 SB</i> QC / QA Coordinator <i>DAS 9 9-89 2001.03</i>	
	No change to fit form or function.		
	The job route must specify the wire that is called out on the drawing The inventory P/N must reflect the same P/N that was received from a vendor		
Root Cause			

Root Cause		FAULT CATEGORY			
Operator	☐	☐ Pressure/Forced	☐ Contamination	☐ Power Loss/Surge	☐ Positioned Wrong
Manufacturing Process	☐	☐ Bending	☐ Misaligned/off center	☐ Folio/Program	☐ Outside Tolerance
Equip/Tooling	☐	☐ Crushing	☐ BOM/Route	☐ Grain Direction	☒ Drawing
Handling/Presservation	☐	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Finish
Material	☐	☐ Crimp/Kink/Ripple/Wave/Twist	☐ Incomplete/Unclear Instructions	☐ Wrong Stock Pulled	☐ Part Lost/Missing
Product Improvement	☒ X	☐ Marks/Chatter	☐ Drill Holes	☐ Out of Sequence	☐ Misread
Process Improvement	☐	☐ Mislabeled	☐ Fit/Function	☐ Off-set/Set-up	
Human Factors	☐	Other/Details:			

P/N	Revision	Drawing Specified Wire	Acceptable Alternate Wire
C2	2	MIL-C-27500 11-14416	N/A
C3	2	MIL-C-27500 11-14417	N/A
C10	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C15	2	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C20	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C45	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C60	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C250	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-4	3	EL 414-ARTIC 4/14	Texcan 01121-734A5 or 01004-08-047
SWA6A-2	E	Texcan 01121-724AM	Texcan 01121-744A5
SWA6A-3	E	Texcan 01121-734A5 or 01004-08-047	N/A
SWA6A-4	E	Texcan 01121-744A5	N/A
SWA6A-6	E	Texcan 04121-764A5	N/A
SWA6A-8	E	Texcan 12701-08-014 or McMaster 7081K38	N/A
SWA10A-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-4	3	EL 414 ARTIC 4/14	Texcan 01121-744A5
SWA10A-6	3	EL 616 ARTIC	Texcan 04121-764A5
SWA10A-8	3	Polar Wire 30806	Texcan 12701-08-014 or McMaster 7081K38
SWA15A-2	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-4	1	EL 414 ARTIC 4/14	Texcan 01121-734A5 or 01004-08-047
SWA15A-6	1	EL 616 ARTIC	Texcan 01121-744A5
SWA15A-8	1	EL 816 ARTIC	Texcan 04121-764A5
SAW25A-2	1	3/14 SJTOW	Texcan 12701-08-014 or McMaster 7081K38
SAW25A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SAW25A-4	1	EL 414 ARTIC 4/14	Texcan 01121-734A5 or 01004-08-047
SAW25A-6	1	EL 616 ARTIC	Texcan 01121-744A5
SAW25A-8	1	EL 816 ARTIC	Texcan 04121-764A5
			Texcan 12701-08-014 or McMaster 7081K38